

Helping Our Kids Breathe Easier:

Policy Solutions In The Fight Against Childhood Asthma

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HEALTH...IN BRIEF

POLICY ISSUES FACING A DIVERSE CALIFORNIA

Summary

The Golden State's beautiful seascapes and amazing vistas aren't the only things leaving Californians breathless: Asthma rates in California are among the highest in the country. Among California children under 18 years of age, one in 10 suffers from this chronic respiratory disease.

Asthma is responsible for the most disabilities, hospital admissions and school absenteeism among children. Children with asthma who are exposed to certain environmental "triggers" — such as air pollution, outdoor allergens (e.g., pollen), tobacco smoke, dust mites, animal dander, mold and upper respiratory infections — may experience symptoms more frequently.

Fortunately, the disease is largely preventable. With proper medication and attention to environmental conditions, the symptoms of asthma can generally be well controlled. However, many communities face a number of environmental factors — from substandard housing conditions and rundown schools, to automobile emissions and industrial pollution — that have been implicated in causing or worsening childhood asthma. These conditions make it difficult for California children with asthma to live, learn and play.



Historically, efforts to address childhood asthma have tended to focus more on treating the symptoms of the disease rather than on finding ways to prevent it. Public policy changes aimed at ameliorating the environmental triggers of asthma in homes, schools and the outdoors are critical to improving the health and quality of life for California children with asthma.

The Problem

Asthma is the most common chronic childhood disease, affecting 4.8 million children nationwide and accounting for one-third of all pediatric emergency visits. In California, 10 percent of children 18 years of age and under have been diagnosed with asthma. This rate is higher than rates found in the United States overall. Asthma also accounts for more than 15,000 hospitalizations of California children under age 15 each year.

Asthma among California's children also reveals a troubling picture of health disparities, with lower-income, minority children disproportionately affected by the disease. One in four American Indian and Alaska Native children in California has been diagnosed with asthma. Among African Americans, one in five children suffers from the disease. These rates are significantly higher than rates among other children.

Moreover, according to the California Department of Health Services, the hospitalization rate for asthma in California is more than three times higher for African American children than for other children. Another study found that, in some parts of the state, Latino children were 50 percent more likely than white children to be hospitalized for asthma. Sadly, between 1990 and 1997, 144 California children between the ages of 0-14 died of asthma, with African-American children dying at seven times the rate of white children.

Research shows that income and geography also play a role in the prevalence of asthma. Low-income children and those who live in rural areas are more likely to experience frequent asthma symptoms. For example, children living in the San Joaquin Valley have a higher rate of asthma compared to children residing in other parts of the state (see sidebar). Eleven cities in California — both urban and rural — are ranked in the nation's top 100 "asthma capitals" by the Asthma and Allergy Foundation of America.

Uncontrolled asthma affects children's school attendance as well as their ability to participate in physical activities, especially outdoors. Nationwide, nearly a quarter of children with asthma miss school some time during the year due to asthma, leading to 14 million missed school days. Nearly 158,000 California children (ages 0-11) with asthma symptoms limited their physical activities because of the condition.

Causes and Consequences

While there is no known cure for asthma, the school absences, hospitalizations and emergency room visits associated with it are largely preventable. With proper patient and caregiver education, medical treatment and management, and attention to the physical environment, the frequency and severity of asthma "attacks" — most often characterized by shortness of breath, coughing, wheezing or tightness in the chest — can be effectively controlled.

Environmental factors are known to play a major role in asthma. Children with asthma who are exposed to certain environmental triggers — such as air pollution, tobacco smoke and household dust mites, to name just a few — may experience more frequent asthma symptoms. Elevated levels of particulate matter (e.g., from diesel exhaust and fireplace soot) are strongly linked to asthma attacks. Studies show that children who live near freeways, for example, suffer significantly higher asthma rates. Emissions from oil refineries and chemical plants are also key contributors to high asthma rates. Higher rates of asthma among children who live in low-income and rural areas may be attributable to greater exposure to environmental triggers.

The consequences of asthma make it difficult for many children to live, learn and play. Proper medical management and appropriate use of medication are indispensable in addressing the asthma epidemic. However, efforts to ameliorate or eliminate the environmental triggers that can exacerbate asthma are equally important. In the long run, prevention is the most effective way to limit the damaging effects of childhood asthma.



Asthma's High Price

Not only does asthma take a heavy toll on children who suffer from the disease, it also has serious economic consequences for the state of California.

- According to the Asthma and Allergy Foundation of America, in 1998, asthma cost an estimated \$1.3 billion in direct and indirect costs in California. Nearly \$400 million of those costs are associated with children.
- The California Department of Health Services reports that asthma hospitalizations cost \$480 million in California in 2000.
- Data from the National Health Interview Survey reveal that over half of the hospital payments for children with asthma between 1995 and 1997 were paid by Medi-Cal.
- One study of ozone-related school absences for children aged 5 to 18 residing in Southern California found the economic value of fewer school absences to be an estimated \$245 million annually.

Reducing Asthma Triggers

Many communities face poor housing conditions, dilapidated schools and poor air quality from nearby freeways and industries. A study of portable and traditional classrooms in California, for example, identified a number of environmental health hazards in need of improvement — including mold contamination, inadequate ventilation, poor temperature control, elevated levels of volatile chemicals and excessive use of some pesticides.

While families can take some steps to control the indoor environment of their homes — for example, by providing allergy-protection bedding and choosing not to smoke — families alone cannot initiate the larger changes needed to improve their children's environments to reduce the frequency and severity of asthma attacks. Moreover, landlords, school administrators, recreational center staff and others responsible for the environments in which school-aged children live, learn and play often do not understand the circumstances that trigger or exacerbate asthma attacks or the strategies for eliminating them.

As such, long-term efforts to reduce asthma triggers will require the development and implementation of systemic policy changes at the state and local levels. This is essential to reducing the high costs associated with asthma (e.g., emergency room visits) and to improving the quality of life for California children.

Policy Goals: A Focus on Prevention

Asthma is not just a medical problem — it is also a public policy opportunity. The following policy goals aim to reduce asthma risk factors and improve quality of life for California children at home, in schools, in recreational centers and outdoors:

Home

- Reduce financial barriers to effective asthma prevention (e.g., medical coverage for mattress covers, reimbursement for inhaler spacers, or cockroach and mice abatement).
- Increase parental awareness about ways to minimize exposure to harmful triggers, such as smoking, dust mites and other indoor allergens.
- Work with public housing authorities to establish asthma guidelines, improve practices and increase enforcement of existing codes (e.g., mold control and cockroach abatement).

Schools/Recreational Centers

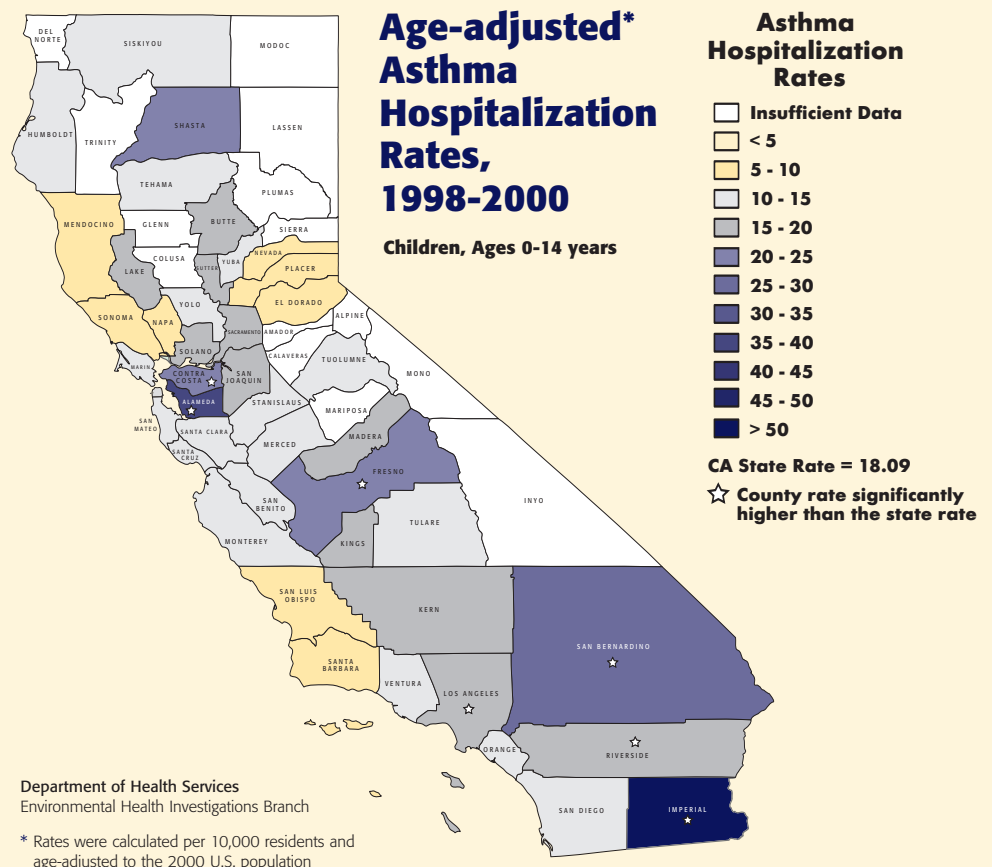
- Increase resources for school facility maintenance and health improvement projects. Restore funding for school nurses.
- Permit students to use asthma emergency medications in schools.
- Implement standards and guidelines (e.g., proximity to freeways, asthma-friendly building materials) to reduce asthma triggers in local schools and recreational facilities.

Outdoor Environments

- Support transportation and land use policies that reduce automobile use and emissions.
- Improve air quality by reducing ozone and particulate matter through development of alternative transportation programs (e.g., ride sharing), restrictions on burning, greater controls on emissions (especially diesel), alternate truck routes, and restrictions on the use of toxic pesticides near populations or schools.
- Establish effective policies for communicating culturally and linguistically appropriate health advisories on poor air quality (high ozone level) days in order to reduce exposure risk.

Geography Matters!

When it comes to asthma and its triggers, where a child lives can make a difference. Nowhere is this more evident than in California's San Joaquin Valley, where children have a significantly higher rate of asthma compared to children residing in other areas of the state. Not only is the Valley the heart of the state's agricultural industry, it is also one of the most polluted regions of the country. In fact, the San Joaquin Valley does not currently meet health-based standards set by the U.S. Environmental Protection Agency for ozone (i.e., smog) and particulate matter. The San Joaquin Valley also accounts for a high percentage of the pesticide use — a known asthma trigger — in the United States. Targeted changes in public policy — such as eliminating the agricultural exemption from the federal Clean Air Act — would go far to reduce environmental triggers and make the San Joaquin Valley a healthier place for children.



The California Endowment's Comprehensive Asthma Initiative

In 2001, The California Endowment launched a major initiative to reduce health disparities and improve the quality of life for school-aged children with asthma. Two separate, but related, programs were developed to achieve this goal.

The California Asthma Among the School-Aged (**CAASA**) program seeks to raise knowledge and awareness of asthma among health care providers and improve the clinical management of school-aged children with asthma. Administered through the Integrating Medicine and Public Health Program (a collaboration between the California Department of Health Services and the University of California, San Francisco), CAASA has awarded \$3.6 million in grants to hire community health outreach workers and implement continuous quality improvement programs in seven health clinics throughout the state. The approach has proven very successful and cost-effective. Efforts are underway to obtain Medi-Cal reimbursement for these services. Not only would such financing provide long-term stability to these asthma clinics and preserve access for children, but it would save Medi-Cal money by reducing repeat acute asthma episodes and the need for hospitalization.

Complementing the CAASA program is the Community Action to Fight Asthma (**CAFA**) (www.calasthma.org) program, which aims to reduce environmental risk factors for school-aged children with asthma. CAFA is a statewide \$12 million, three-year program that supports 12 local coalitions, four regional centers and a state coordinating office that advance policies to reduce asthma triggers in housing, schools, recreational centers and the outdoors. Coalition partners select a neighborhood and analyze the environmental exposures that threaten to trigger asthma. This approach allows communities to become involved in data collection, surveillance and monitoring of asthma as well as the implementation of targeted interventions.

Together, CAASA and CAFA represent a comprehensive approach to reducing health disparities and improving the quality of life for school-aged children with asthma.

A Breath of Fresh Air

The creation and implementation of viable, asthma-friendly public policy is an important step in protecting the health and well-being of California's children. A number of bills are pending in the Legislature that would reduce environmental hazards known to cause or worsen asthma. Through the work of CAFA and its community-based coalitions, some early policy successes at the local level have already been achieved.

- San Diego is replacing carpet, a notorious allergen trap and trigger for asthma, with easy-to-clean linoleum in renovated schools.
- Newly constructed public housing units in some Los Angeles neighborhoods are carpet-free.
- In Tulare, the school district has agreed to plant allergy-free trees on and around school sites, and local government is considering establishing a city ordinance for allergy-free trees.
- Long Beach schools raise a flag indicating poor air quality days to prevent asthmatic children from participating in outside activities.

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